

**ERIGERON MAYOENSIS (ASTERACEAE: ASTEREA), A NEW SPECIES
FROM NORTHWESTERN MEXICO**

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ABSTRACT

A new species, *Erigeron mayoensis*, is described from three collections from southern Sonora and immediately adjacent Chihuahua, México, in the Río Mayo area east of San Bernardo. It is most closely related to *E. wislizeni* and *E. griseus* (sect. *Polyactis*) but differs from both in its combination of persistent, bicolored basal leaves, phyllaries with scarios margins, fewer ray flowers, and pappus reduced to a minute ring of squamellate teeth less than 0.05 mm high.

KEY WORDS: *Erigeron*, *Asterea*, *Asteraceae*, Río Mayo, México

A new species of *Erigeron* sect. *Polyactis* has recently been recognized from southern Sonora (Nesom 1993), and in a review of peripheral elements of the *E. wislizeni* (A. Gray) E. Greene complex, another group of populations from the same general area appears to be best treated as a separate species. The center of diversity for sect. *Polyactis* is in the mountains of northwestern México (Nesom 1989), where both of these recently recognized species occur. Both are from the Río Mayo area.

Erigeron mayoensis Nesom, *sp. nov.* TYPE: MEXICO. Sonora: Cerro Saguarivo [or Sahuaribo], E of San Bernardo, along stream, 1500 m, 7-8 Aug 1935, F.W. Pennell 19609 (HOLOTYPE: US!; Isotype: PH!).

Erigeronti wislizeni (A. Gray) E. Greene ac *E. griseo* (Greenm.) Nesom similis sed ab utroque foliis basilibus persistentibus interdum bicoloribusque, phyllariis latoribus marginibus scariosis, floribus radii paucioribus, et pappo annulus minutus dentium squamellatorum ca. 0.05 mm altorum differt.

Perennial herbs from fibrous roots. Stems single from the base, 10-27 cm tall, unbranched or with 1-3 branches on the lower third, moderately strigose with closely appressed to ascending hairs 0.1-0.4 mm long, more densely so below the heads, eglandular. Leaves short-strigose with closely appressed hairs 0.1-0.3 mm long, eglandular, the basal persistent in a rosette, sometimes purplish beneath, green above, obovate, 2-5 cm long, 5-13 mm wide at widest portion, with 1-2 pairs of large, rounded, shallow teeth near the apex, the cauline similar in color but the purple not so strongly developed, oblanceolate to linear-oblanceolate, not clasping, entire or few-toothed, the largest near midstem where 10-27 mm long, 1-4 mm wide, slightly diminished in size above that but continuing relatively unreduced until immediately beneath the heads. Heads 7-9 mm wide, solitary; phyllaries oblong-lanceolate to broadly oblanceolate, in 3-4 nearly equal series, 4-5 mm long, 1.0-1.5 mm wide, at least the inner with distinctly scarious margins, sparsely pilose-hirsute, with a few minute glands; receptacle essentially smooth, apparently not alveolate. Ray flowers 32-58 in 1(-2) series, the corollas white to lavender, 10-13 mm long, the ligules 1.0-1.3 mm wide. Disc corollas 1.8-2.1 mm long. Achenes 1.7-1.8 mm long, sparsely strigose, 2-ribbed; pappus a barely perceptible ring of tiny squamellate teeth or scales less than 0.05 mm high.

Additional collection examined: MEXICO. Sonora: Sahuaribo waterfall vicinity, 2 km N of Sahuaribo on road to Curohui, 27°21' N, 108°40' W, pine-oak woodland, 1400-1500 m, 20-21 Aug 1992, *Martin et al. s.n.* (ARIZ). Chihuahua: ca. 5 m E of La Lobera along road from La Lobera to pass above Chinipas, 27°18' N, 108°35' W, with *Quercus coccolobifolia*, *Q. arizonica*, and *Pinus herrerae*, ca. 5500 ft, 19 Mar 1992, *Fishbein 208* (TEX).

The Pennell and Martin collections apparently are from the same or nearly the same locality; the collection by Fishbein ("above Chinipas") is separated by less than 20 kilometers from the other two, barely within the limits of Chihuahua. The location of all three is northeast of Alamos and east to east-northeast of San Bernardo. The plants occur in pine-oak woodlands at ca. 5000-5500 feet elevation.

In an earlier study (Nesom 1989), I identified Pennell's collection (the type of *Erigeron mayoensis*) as *E. wislizeni*, but with the two recent gatherings, it is clear that these plants can be recognized apart from the larger complex as a discrete element. It might be treated as a variety, but given the significant amount of variation already admitted and still remaining within *E. wislizeni*, *E. mayoensis* is justifiably segregated as a separate species, narrowly endemic along the western periphery of the larger geographic range of *E. wislizeni* (see Nesom 1989, Map 7). *Erigeron griseus* is also closely related to *E. wislizeni*, but the latter two species are widely separated in geography and the morphological distinctions previously noted for them (Nesom 1989) remain valid. Some of the features of *E. mayoensis* are more similar to *E. griseus* than to *E. wislizeni*, but the nature of the evolutionary inter-relationship among these three species

is obscure.

Erigeron mayoensis is similar to *E. wislizeni* and *E. griseus* in its fibrous-rooted habit, perennial duration, simple or few-branched stems, non-clasping cauline leaves, reduced pappus (lacking bristles), and ray corollas that vary in color from white to blue or lavender. It differs from both species in basal leaves that are persistent (vs. early deciduous) and sometimes bicolored (vs. green on both surfaces), fewer ray flowers (32-58 vs. 115-180 in *E. wislizeni* and 40-230 in *E. griseus*), and its pappus, a ring of squamellate teeth less than 0.05 mm high (*E. wislizeni* has a laciniate-margined corona or series of basally fused scales 0.2-0.5 mm high; *E. griseus* has merely a smooth-margined, cartilaginous rim). The new species differs further from *E. wislizeni* in its smooth or punctate receptacles (vs. alveolate) and phyllaries with thin-scarious margins (vs. thick-margined), although *E. mayoensis* and *E. griseus* are similar in these features.

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